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10/707,487	12/17/2003	John C. Tsai	60154.302101	1486

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INTELLECTUAL PROPERTY LAW OFFICE  
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EXAMINER

RAEVIS, ROBERT R

ART UNIT PAPER NUMBER

2856

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/707,487

**Applicant(s)**

TSAI, JOHN C.

**Examiner**

Robert R. Raevis

**Art Unit**

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

The disclosure is objected to because of the following informalities: "detector 36" (p. 6, line 5) should read – detector 16 --.

Appropriate correction is required.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the gimbal mounts and goniometers (of claim 3); a stage that has two pieces that share the same scale (of claim 4), a system that includes multiple stages and thus multiple displays and sensors (as in claim 5) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "68" (on p. 7, line 3 from bottom). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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As to claim 4, what is this claim referring to in the written specification and drawings? Does “*same said first piece*” (italics added) mean that there is a minimum of one first piece in this claim, or does it mean that there is a minimum of two identical (or similar) first pieces? If the latter, how can the two different pieces (with individual scales) share the same scale? To what extent are the “plurality of stages” (line 2) identical (if at all) to the “stage” (of claim 1)?

As to claim 5, does “plurality of stages” mean that *each of* the stages other than (or even some portion of) that of claim 1 include all the limitations of lines 5-last of claim 1? What is this claim referring to in the written specification and drawings?

Claim 10 is a duplicate of claim 9. Is this intended?

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,12,14,15,18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Falk et al '691.

Falk et al teach a system including: stage having first 100 and second 16 pieces; scale 102 integrated in the first piece; detector and display 32 integrated in the second piece. The signals created by the scale 102 are counted. The sensor is optical, and the device includes a “reset “ (col. 3, line 26).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falk et al.

As to claim 4, it is known to tie two fishing lines together to produce a longer line, suggestive of tying two short lines 100 together to provide for a longer range. This would result in two first pieces (each having scales 102) with a continuous scale 102. Thus, the "continuous scale" results in the two lines providing a "same said first piece". Also, those two lines share the same second piece (detector and display). Thus, Falk has a plurality of stages to the same extent as Applicant's claim.

As to claim 5, it would have been obvious for an individual to employ two of Falk's fishing poles at the same site to double the chances of catching a fish. Such a dual pole system results in a measurement system that has two stages (i.e. two poles).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Falk et al as applied to claim1 above, and further in view of either Ozawa or Bicking.

As to claim 13, it would have been obvious to employ either filter or amp in Falk's detector signal line because either Ozawa (element 4) or Bicking (elements 96,98) teach that sensor output signals benefit from such circuitry to effectively pass data (filter out noise, serve as a preamp) to a computation circuit.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Falk et al as applied to claim1 above, and further in view of Myers et al.

As to claim 17, it would have been obvious to employ microprocessor between Falk's display and sensor because Myers et al teach (Figure 3 that a microprocessor may effectively process position data to control a display.

Claims 3, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falk et al as applied to claim 1 above, and further in view of Helmricks.

Falk teaches (Figure 1) a system, and also (col. 1, lines 40-50) estimating distance with a rotational sensor.

As to claims 3 and 11, it would have been obvious to employ a rotationally sensitive element on the reel 14 of Falk because Helmricks teaches use of a wheel 14/46 to measure rotation of an element. It would also have been obvious to employ Falk's sensor/display system with the wheel because Falk teaches that the sensors and display may be integral to allow for a compact measuring system.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falk et al as applied to claim 1 above, and further in view of Helmricks, Schwabe and Nelle.

Comments that exist above regarding claim 3 similarly apply here. In addition, it would have been obvious to employ scale along the rotational arc of Helmricks wheel because Schwabe teaches (Figure 6) locating scales along an arc to effectively measure rotational displacement. It would have been obvious to employ tape as the scale because Nelle teaches (col. 1, lines 2-30) that tape effectively allows for securing a scale to a measuring instrument.

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Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al '491 in view of Nelle.

Sasaki et al teach (Figure 3A) a system employing a stage having first (left hand element) and second (right-hand element) pieces, the first having a scale and the second having display and sensor.

Sasaki does not employ tape.

As to claims 7 and 8, it would have been obvious to employ tape as the scale because Nelle teaches (col. 1, lines 2-30) that tape effectively allows for securing a scale to a measuring instrument. Also, Sasaki's "periodic pattern" (ABSTRACT) suggests a digital scale, but if not, it is known to apply either reflective or optical (col. 3, line 29) markings in a manner to permit for a counter to measure distance.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al in view of Bezing et al.

Sasaki et al teach (Figure 3A) a system employing a stage having first (left hand element) and second (right-hand element) pieces, the first having a scale and the second having display and sensor.

Sasaki does not employ a port for an outside system.

As to claim 16, Sasaki's "periodic pattern" (ABSTRACT) suggests a digital scale, but if not, it is known to apply either reflective or optical (col. 3, line 29) markings in a manner to permit for a counter to measure distance. In addition, it would have been obvious to employ an port to pass data to a computerized outside system as Bezing et al teaches (col. 4, lines 40-47) directly passing data from a caliper to a personal

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computer, to avoid the unnecessary step of manual entry of such data into the computer.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gerber teaches use of a plurality of graduation/sensor subcombinations 40/42 60/62 on the same device, as does Shirai et al (Figure 1).

Sasaki '868 and Ishizuka et al. teach a display that is digital.

Clairet et al refer to « digital » (col. 4, line 39) measuring.

Botos et al teach a goniometer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 7am to 4pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Raevis*  
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